

530, 035

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
22 April 2004 (22.04.2004)

PCT

(10) International Publication Number  
**WO 2004/033685 A1**

(51) International Patent Classification<sup>7</sup>: **C12N 15/12**,  
15/62, C07K 14/705, 16/28, G01N 33/68, A61K 38/17

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(21) International Application Number:  
PCT/GB2003/004310

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, GB, GD, GE, GH, GM,  
HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,  
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,  
MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,  
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,  
US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 3 October 2003 (03.10.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0223399.7 9 October 2002 (09.10.2002) GB  
0302604.4 5 February 2003 (05.02.2003) GB  
0304064.9 22 February 2003 (22.02.2003) GB  
60/475,784 5 June 2003 (05.06.2003) US

(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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**Published:**

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

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*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*

(54) Title: SINGLE CHAIN RECOMBINANT T CELL RECEPTORS

(57) Abstract: A single chain T cell receptor (scTCR) comprising an a segment constituted by a TCR  $\alpha$  chain variable region sequence fused to the N terminus of a TCR  $\alpha$  chain constant region extracellular sequence, a  $\beta$  segment constituted by a TCR  $\beta$  chain variable region fused to the N terminus of a TCR  $\beta$  chain constant region extracellular sequence, and a linker sequence linking the C terminus of the  $\alpha$  segment to the N terminus of the  $\beta$  segment, or vice versa, the constant region extracellular sequences of the  $\alpha$  and  $\beta$  segments being linked by a disulfide bond, the length of the linker sequence and the position of the disulfide bond being such that the variable region sequences of the  $\alpha$  and  $\beta$  segments are mutually orientated substantially as in native  $\alpha\beta$  T cell receptors. Complexes of two or more such scTCRs, and use of the scTCRs in therapy and in various screening applications are also disclosed.



WO 2004/033685 A1